CHAP. XV.

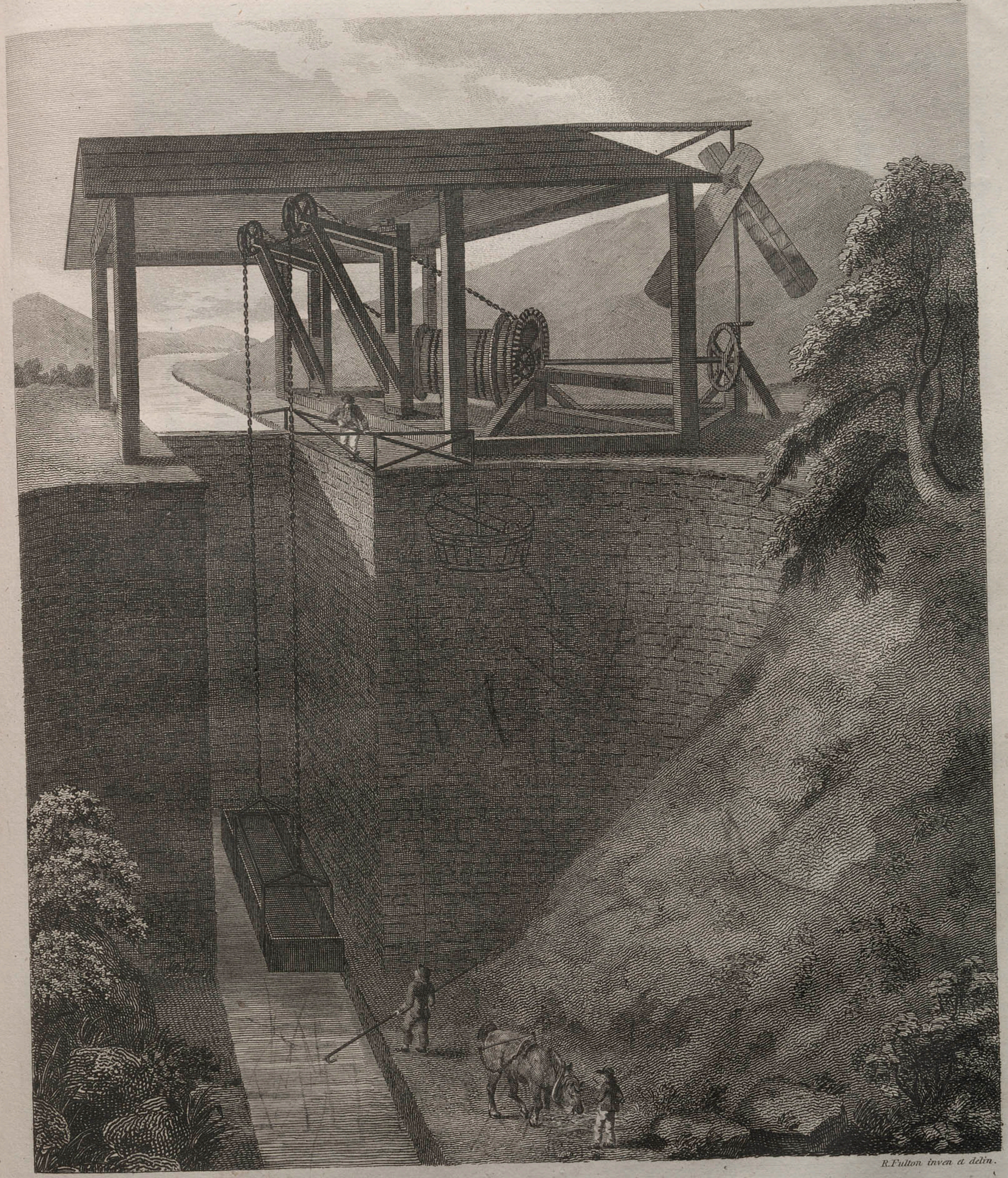
DESCRIPTION OF THE PERPENDICULAR LIFT, PLATE IX AND X.

IN conſtructing this apparatus, the canal being run to ſuch a point of a hill as will admit of a quick riſe; the hill, if ſteep, may be laid open, as in the Plate, or have two pits ſunk equal in depth to the difference between the levels of the two canals; one of the pits of an oval form, and ſufficiently large to ſuffer a boat twenty feet long, four feet ſix wide, to paſs through; the other, eleven feet diameter, for a preponderating tub. The two to be united to the canal by a tunnel.

Having formed the tunnel and pits, two cranes are to be conſtructed, each fifteen feet high, capable of bearing three tons each, which muſt be placed on the ſide of the upper canal, and oppoſite the junction of the canal and pit, as in Plate X.

Thoſe cranes muſt ſtand twelve feet apart from gudgeon to gudgeon, and their gibs to be united by a lever, alſo twelve feet long, as at A in Plate X.; by this means, the cranes will ever move parallel to each other, and keep their chains equi-diſtant.

Behind the cranes, and over the pit C, there is a drum-wheel of two diameters; to the largeſt the crane chains are faſtened, and thoſe of the tub to the ſmall diameter; to the crane-chains a cage of iron is fixed to receive the boat; thus ſuſpended, the cage and tub will move alternately between the ſummit and lower canals.



R. Fulton inven & delin.

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